

Appl. No. 10/099,982  
Amdt. dated March 29, 2004  
Amendment under 37 CFR 1.116 Expedited Procedure  
Examining Group

PATENT

**Amendment(s) to the Drawings:**

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Fig. 1 replaces the original sheet including Fig. 1.

Attachment: Replacement Sheet  
Annotated Sheet Showing Changes

**REMARKS/ARGUMENTS**

Claims 1, 2, 4-9, 11-32, and 38-43 are pending. Claim 1 has been amended. Claims 33-37 have been canceled without prejudice. New claims 38-43 have been added. The specification and drawings have been amended to correct minor informalities. Applicants note that reference number 11 no longer appears in the figures. The proper term Kapton® is now used in the amended specification. No new matter has been introduced. Applicants believe the claims comply with 35 U.S.C. § 112.

Applicants note with appreciation the indicated allowability of claims 7, 8, 11-20, 29, and 30 if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 13-18 have been rewritten as new claim 38-43. Accordingly, claims 38-43 are allowable.

Claims 1, 2, 4-6, 9, 21-28, 31, and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Plante et al., in view of Lach et al. and Williamson et al. The Examiner alleges that Plante et al. discloses many of the elements of claim 1, including shape retaining elements 22, 24. The Examiner cites Lach et al. for allegedly disclosing stiffening elements not taught in Plante et al. Williamson et al. is cited for allegedly disclosing the use of metalized Kapton® for use in a space-based optical reflector.

Applicants respectfully submit that independent claim 1 is patentable over the cited references because, for instance, they do not teach or suggest a plurality of shape retaining elements attached to at least one of the first layer and the second layer and comprising a material having a shape-retaining property operable to deploy the mirror and to bias the mirror in a desired position. The elements 22, 24 are variable length actuators such as electromechanical or hydraulic actuators. "The six independently controllable actuators which form the three pairs of kinematic mounts permit the six degrees of freedom necessary to control all six of the possible rigid body motions of the deformable mirror. To achieve the six degrees of freedom, the end of each actuator 22, 24 in the three pairs of kinematic mounts 20 is attached to the bottom surface of the mirror through the joint 26. The other end is attached to the supporting structure."

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Column 3, line 68, to column 4, line 8. These actuators 22, 24 in Plante do not include a material having a shape-retaining property.

For at least the foregoing reasons, claim 1 and claims 2, 4-9, and 11-32 depending therefrom are patentable.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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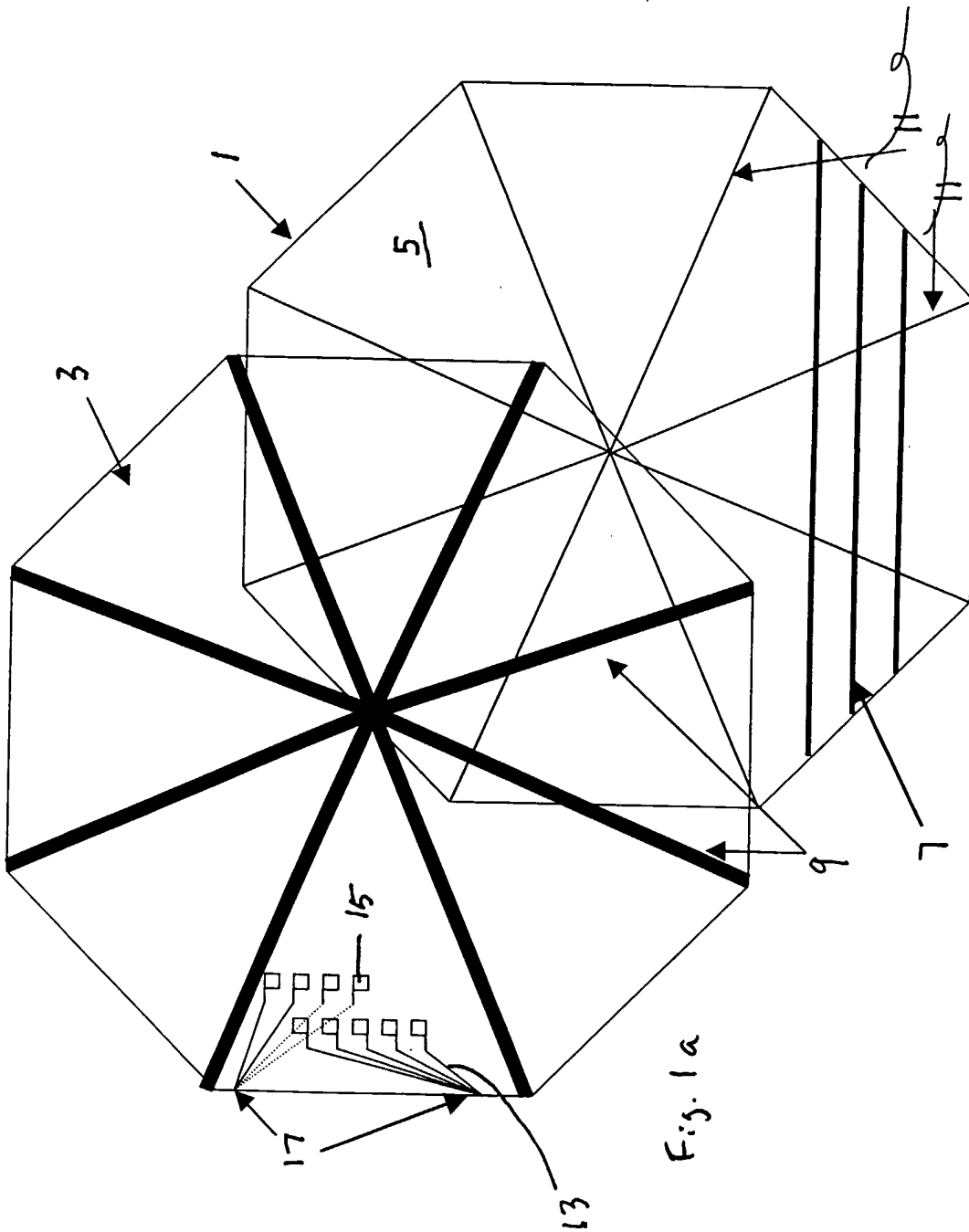


Fig. 16

Fig. 1